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WAGES IN MASSACHUSETTS AND NEW JERSEY.*

BY SCOTT NEARING, PH.D., *Instructor in Economics, University of Pennsylvania.*

Students of Economic Standards, the Cost of Living, and Wage Theories have for a long time been hampered in their investigations by a lack of reliable wage statistics. The need of such statistics is apparent. Any one who has worked in a field which depends immediately or remotely upon the problem of income is aware of the intimate connection between reliable wage data and many fundamental social problems.

Most of the states and, in many instances, the federal government publish wage statistics which are neither reliable nor conclusive because of the unscientific methods of investigation and compilation. Thus much of the wage data published by the various state and federal authorities is most unsatisfactory. During recent years, however, a decided change has been made by many of the officials and real efforts have been put forth to secure reliable wage data. Among the states which have succeeded best in this endeavor there are two, Massachusetts and New Jersey, which stand out pre-eminently for the method of securing their wage statistics as well as for the method of publishing them; in fact, the wage figures presented in the reports of these two states are so generally superior as to make all other state statistics appear inadequate. Hence the following study is presented dealing with the statistics of Massachusetts and New Jersey.

I. AVERAGE VERSUS CLASSIFIED WAGES.

An average wage is obtained by taking the various wages under consideration, adding them together, and dividing by the number of wage groups.

The average is an abstract concept, which, though mathmatically correct, is socially misleading. The statement that the average wage in the building trades is $3 a day leads at once to the conclusion that building-trade employees can provide for themselves a certain quantity of coal, potatoes, woolen clothing, and the other necessaries of life. In other words, men think of wages in terms of purchasing power, yet this $3 wage does not represent the purchasing power of any one individual, hence is misleading if stated without reservations.

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* All of the figures in the present study are taken from the reports of the Massachusetts Bureau of Statistics and the Bureau of Statistics of New Jersey. The figures in Chapter IV relate to the whole series of reports issued by these two bureaus. With this one exception, all of the wage statistics are from the Massachusetts Annual Report on the Statistics of Manufactures for the year 1908, and from the Annual Report of the Bureau of Statistics for the State of New Jersey, 1909.

The weighted average by giving to each wage an importance proportionate to the numbers of men employed at that wage, gives a more accurate idea of the wage in the industry. But the same objection may be urged against the weighted average that was urged against the mathematical average. There is no one group of workers who receive even a weighted average wage. The average is still an abstraction, for the five dollar bricklayer never pays the butcher's bill for the two dollar hod carrier. Each man lives on his own wages. An average merely de-humanizes wage statistics.

Since, this is unquestionably a fact, it is most unfortunate that a majority of the available wage statistics are "average." However, a few of the state reports and the special wage reports recently published by the Federal government present absolute wages. By grouping wages according to earnings, a very accurate idea of the wages in any particular trade may be secured. An excellent illustration of this method is furnished in the Report of the Bureau of Statistics of New Jersey for 1909 (page 85).

NUMBER OF PERSONS RECEIVING SPECIFIED AMOUNTS.

Classified Weekly Earnings.	Men 16 Years and Over.	Women 16 Years and Over.	Children Under 16.	Total Number Receiving Specified Amounts.
Under $5	77	1,610	321	2,008
$5- 6	74	967	15	1,056
6- 7	170	897	3	1,070
7- 8	173	601	..	774
8- 9	165	224	..	384
9-10	195	149	..	344
10-12	227	126	..	353
12-15	221	38	..	259
15-20	155	9	..	164
20 and over	95	1	..	96
Total	1,552	4,622	339	6,513

This method does not of course give the earnings in individual occupations within the industry, though that may be succeessfully done by an elaboration of this method.*

For most industries the New Jersey method remains an effective one. It shows clearly, by age, sex, and industry, exactly what wages are being paid and in what proportion. In the cotton goods industry, for example, some employees receive over $25 per week, 49 men in all. The number who receive $6 to $7 per week (1070) is twenty times as great. The table thus furnishes a definite idea of the distribution of wage earners over the various wage groups. It is, moreover, susceptible of computation for the state at large.

II. THE MASSACHUSETTS METHOD.

The Massachusetts Bureau of Statistics has adopted a schedule similar in most particulars to that employed in New Jersey. The statistical year, for the purposes of this schedule, ends December 31st. On the blanks which are mailed annually to manufacturers throughout the state, there appears a notice to the effect that twenty days from January 1st of the stated year are allowed by law in which the schedule may be filled out and returned. The Bureau of Statistics further assures the manufacturer that the names of persons will in no case be printed and the business of manufacturers individually will not be divulged. Penalties are provided for the punishment, first, of any state employee who may make public answers given in the schedules, and, second, for the manufacturer who fails to make his returns within a specified time. The firm or individual filling in the schedule is compelled to certify as to the correctness of the statements made.

There are ten questions in all which relate to:

(1) and (2) Name and character of firm, (3) Capital invested, (4) Materials used, (5) Goods made, (6) Total wages, (7) Persons employed, (8) Wage earners employed December 17th, (9) Classified weekly wages, and (10) Days in operation. The first five questions do not directly affect the problem of wages. On the remaining questions, some emphasis will be laid.

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* Report on Strike at South Bethlehem, Charles P. Neill, Senate Document 521, 61st Congress, 2nd Session, 58-59, 1910, pp. 61-108.

Total wages are stated in reply to Question 6. "The object of this inquiry is to ascertain the amount of wages paid during the year to all those who work by the six-day week, etc., whose labor directly produced or added to the value of the articles made. The salaries of agents, manufacturers, bookkeepers, clerks, and others of this class should be omitted." By these provisions the Bureau of Statistics aims to secure returns for wage earners alone.

Question 7 relates to persons employed, during each month of the year,—the persons being divided into males, females, and totals for both. Where the number of persons varies during any month, the average is to be obtained thus. "Take from your pay roll for each week all wage earners, classified as to sex, and add the numbers together, dividing the total thus obtained by the number of weeks. For shut downs and stoppages for repairs the average for the month should be proportionately reduced." All persons who receive a yearly salary, such as agents, manufacturers, clerks, bookkeepers, and the like, are omitted from this answer. The answers to Questions 6 and 7 taken together should give a basis for the computation of average wages as well as for a statement of total wages paid and total wage earners employed throughout the year.

In order to ascertain the condition of employment on a given date, (in 1910, on December 17th) Question 8 asks for the wage earners employed on that day. The most important statistics collected on the schedule are secured in response to Question 9, which refers to classified weekly wages. Question 9 in full is as follows:

QUESTION 9. CLASSIFIED WEEKLY WAGES (WAGE EARNERS ONLY).

Specified Wages (Rates) Paid for the Week during which the Largest Number of Persons was Employed.	Adults 18 Years of Age and Over.		Young Persons (under 18 years of Age).	Totals.
	Males.	Females.		
Under $3				
$3 but under $5				
$5 but under $6				
$6 but under $7				
(and Continuing to "$25 and over")				

The object of question 9 is "to ascertain the *rates* of wages whether paid by day, week, or month." These figures are given "for the week during which the largest number of persons was employed." In estimating for piece work, a normal day only is considered, no allowance being made for over time. If the firm reporting prefers, it is permitted to send a transscript of its payroll instead of a compiled answer to this questtion. The number of days in operation, which is secured in answer to question 10, provides the only statistics from which the amount of unemployment can be deduced. In answering this question, the number of days the plant was in operation on full time should be given separately from the number of days run on three quarters time, on one half time, on less than one half time, and the number of days idle.

The answers to these ten questions which constitute the available material on wages in Massachusetts are compiled and published by the Bureau of Statistics under the heading, "Statistics of Manufactures." After discussing the number of establishments making returns during the various years, the report, under six tables, compiles all the answers received to the schedules. Table 1, including a compilation of answers received on Questions 1 to 6, gives in detail: (1) Number of establishments, (2) Capital devoted to Production, (3) Value of Stock and Materials used, (4) Amount of Wages paid during the year, (5) Average yearly earnings, (6) Wage earners employed, (a) Average number of: *a* Males, *b* Females, *c* Both sexes, (b) Smallest number, (c) Largest number, and (7) Value of product.

These statistics are compiled: (a) For the entire state by industries, (b) for the thirty-three cities by industries, and (c) for one hundred and eight towns by industries.

Table 2 in a report for 1908 covers in detail the boot and shoe industry. In table 4 appears a tabulation by industries of the answers made to Question 7 as to the number of persons employed during each month. Table 5 includes, by industries, the classified weekly wages as stated in the answers to Question 9. These wages are classified in considerable detail, referring to industries and their subdivisions. There are three parts to table 6, which furnishes the statistics of time worked by cities and towns, by industries and by counties.

All of this tabulated material appears in one hundred and twenty-six pages, well tabulated, compiled apparently with great care and in a form readily available for statistical study. It permits of accurate analysis of average and classified wages in Massachusetts and of the extent of unemployment upon which so much depends in discussing the wages in a given area.

Another group of statistics regarding the changes in the rate of wages during the current year is secured on the schedules furnished to trade unions as well as to manufacturers. Were it possible to secure from trade union sources accurate statements regarding the amount of wages as well as the changes in wages, wage data of incalculable value could be compiled. Unfortunately, under present conditions, such a possibility seems fairly remote.

III. THE NEW JERSEY METHOD.

In view of the similarity already noted between the wage statistics in New Jersey and Massachusetts, no extended comment will be made on the New Jersey schedule. As in Massachusetts, the data furnished by the manufacturer is held absolutely confidential. The penalty for failure to provide the information requested is a fine of fifty dollars for each offense.

On the New Jersey schedule, Questions 1 to 4 are similar to that of Massachusetts. Question 5, differing slightly from the Massachusetts question, requires that "one or two of the principal articles of material used in manufacture" be entered on the schedule. The principal articles or goods made, and the total value of all products is given in answer to Question 6, while the answer to Question 7, stated exactly the same as the Massachusetts question, relates to the total amount of wages paid during the year.

The purpose of Question 8 is the same in both states, but the New Jersey Schedule is distinctly superior to the Massachusetts schedule in one respect. The Massachusetts question relating to the number of persons employed requires a statement of their number by months for "males," "females," and "totals." The New Nersey question requires the same information for "males sixteen years and over," "females, sixteen years and over," and "children under sixteen years."

The classified wage statistics in Massachusetts were up to 1908 given for "males twenty-one years and over," "females twenty-one years and over," and "young persons under twenty-one years of age." In 1909, however, the age was changed to eighteen. The reason for this age is not clear because most of the legislation upon the subject of child work relates to sixteen amd most of the wage schedules of the country publish wages above and below sixteen years of age. Therefore, for the purposes of comparison with the census, with factory reports, or with other states, sixteen, the age adopted by New Jersey, is preferable. Question 10 relates to unemployment, stated in terms of percentage, which the amount of business done during the year under discussion bore to the full capacity of the plant. The time during which the factory was in operation was stated in number of days per year, number of hours per day, number of hours per week, and total extra time during the year. This information is called for by Question 11. The substance of both of these questions was secured in Massachusetts by Question 10 regarding the number of days in operation.

A considerable difference appears, however, in the method of presentation adopted in the two states. The material derived from the New Jersey schedule is published in twelve tables. Tables 1 to 3 are irrelevant to this study. The average number of persons employed together with the greatest and least number classified by industries appears in Table 4, and Table 5 includes a statement of the average number of wage earners employed by industries. In Table 6 there is a statement of the aggregate amounts paid in wages, together with the yearly earnings per employee classified by industries. In this classification the New Jersey statistics are markedly inferior to those in Massachusetts. The Massachusetts statistics are compiled by industries and very accurately classified and minutely subdivided.

All of the industries of New Jersey are published under eighty-nine headings, the last one, including miscellaneous, without any apparent effort at thorough analysis and accurate description. For example, the following list of headings refers to textiles, "20 cotton goods," "21 cotton goods (finishing and dyeing)", "68 silk (broad and ribbon)," "69 silk (dyeing)," "70 silk (throwing)", "78 textile products," "88 woolen and worsted goods." It is manifestly impossible to determine from these descriptions exactly what industries are included. In sharp contrast with this desultory classification appears the accurate, clear-cut classification adopted by the Massachusetts bureau.

Table 8 of the New Jersey report contains a statement of the number of days in operation, the number of hours worked per day, the number of hours per week, and over time, with wages classified by industries. The material is, if anything, slightly more complete than that furnished by the Massachusetts bureau in the same connection, although in Massachusetts the classification is more complete by industries and localities. In Table 9 appears a statement of the proportion of business done, classified by industries, while table 10 details the power used, classified by kind of power and industry.

IV. AVERAGE WAGES IN MASSACHUSETTS AND NEW JERSEY, 1908–09.

Average wage statistics, while not nearly so valuable as the statistics of classified wages, nevertheless prove valuable in comparisons and lend themselves, within certain restricted bounds, to general deductions. For example, they permit of comparisons between industries and, to a limited extent, between the states publishing them. In Massachusetts there were, according to the 1908 figures, 480,134 wage earners of whom 323,308 were males and 156,826 females, employed in 6,044 establishments and receiving average yearly wages of $510.71.* Since no separate figures appear in this table for males, females, and young persons, the total average annual earnings alone are presented. Twenty-six Massachusetts industries during the year under consideration reported the employment of more than three thousand wage earners.

A study of this table shows that fourteen of the twenty-six industries report average annual earnings of less than $500, while twenty-two report average annual earnings under $600. The leading industries of Massachusetts,—the manufacture of cotton goods, of worsted goods, of paper and wood pulp, of woolen goods, of boots and shoes, of electric machinery,—pay annual wages of less than $600. On the other hand, a few industries, such as the manufacture of malt liquors, automobiles, tobacco, stoves, monuments and tomb stones, carriages and wagons, fire arms, foundry and machine shop products, and musical instruments, report average yearly earnings of more than $600. With the one exception of foundry and machine shop, employing 31,112 men, the large industries pay comparatively low average yearly wages.

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* Statistics of Manufactures for 1908, Public Document No. 36, Boston, 1909, p. 2.

The average earnings in New Jersey differ only slightly from those in Massachusetts. The method of computation is very similar and the number of New Jersey industries (25 in all), employing more than 3,000 persons, is almost the same as the number of such industries in Massachusetts (26). The industries of New Jersey differ from those of Massachusetts in one respect; they vary less in the number of persons employed. In Massachusetts there are four industries, cotton goods, worsted goods, boots and shoes, and foundry and machine shop products, each employing more than 25,000 persons. With these exceptions, most of the Massachusetts industries employed comparatively small numbers. In New Jersey employment is more evenly distributed.

In 2,127 establishments, reporting in 1908, there were employed 278,964 persons, who received an average annual wage of $500.14.* There is thus a difference of only ten dollars between the average annual earnings of all employees in Massachusetts and in New Jersey.

Here the Massachusetts industries show slightly higher than those of New Jersey though the difference is not material. In so far as these average wage statistics permit of conclusions, they show that, in the first place, the average earnings of all employees in two of the leading industrial states are about $500; that this amount is apparently increased in those industries which are dominated by men, and decreased in those industries which are dominated by women; and that the typical industries of the state,—those employing the largest number of persons,—in most cases pay less than $600, the higher annual earnings being paid in the comparatively small industries.

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* Bureau of Statistics of New Jersey, 1909, Camden, 1910, pp. 74, 75.

The material thus far presented has dealt only with the current year. There is, however, another very distinct problem. "What is happening to wages?" In Massachusetts, the available material goes back only to 1903, while in New Jersey it extends back to 1897. In neither case do the wage statistics cover a representative period of depression and prosperity. Yet the period covered is sufficiently extended to be worthy of some comment.

Both states publish average wages. A glance at the table for Massachusetts shows a steadily rising wage not only in the industries of the state, but in the six most representative industries as well. In the state at large, average yearly earnings have increased slightly less than 10 per cent., a figure which holds with marked similarity throughout all of the separate industries included in the table. Apparently so far as average wages are concerned, according to the index of conditions, there was a constant rise between 1903 and 1907 in the averages wages among all groups of workers in Massachusetts.

The average wages in New Jersey are available over a much longer period, yet the results differ very little from those in Massachusetts, save that the increase in average wage has been considerably greater in New Jersey than in the latter state. In all of the New Jersey industries, the increase in average wages has been about 25 per cent. In the manufacture of machinery, of oils, and of chemical supplies, the rate of increase was about the same, while it was somewhat greater in the woolen and worsted industry (35 per cent.) and considerably less in the silk industry (50 per cent.). Nevertheless, with the exception of the silk industry, all of the New Jersey industries show a very marked increase in average wages between 1897 and 1908. A study of the wage table shows that one half of the adult male and nine tenths of the adult female wage earners in Massachusetts were receiving less than $12 per week while less than 2 per cent. of the young persons under twenty-one years of age received more than $12 per week. Furthermore of those employed, 114 of the males received over $15 per week,—a wage secured by only one fiftieth of the adult females.

In New Jersey classified weekly earnings for all industries range much the same as those in Massachusetts. Adult males and females are sixteen years and over instead of twenty-one years and over as in Massachusetts. Hence the difference in the wages of young persons in the two states might be expected. Making allowances for the slight influence which such a difference must exercise over the wages of adult males and females, classified earnings in the two states are remarkably similar. One fourth of the men over sixteen and four fifths of the women over sixteen receive less than $9.00 a week, while one half of the men and nineteen twentieths of the women are paid less than $12.00.

The classified wage statistics, the most accurate procurable, are remarkably similar in both Massachusetts and New Jersey. In both states about 10 per cent. of the adult males and somewhat less than 1 per cent. of the adult females earn more than $20 per week. In both states, one quarter of all of the adult males and three fifths of all of the adult females earn less than $9 per week.

Turning now to the Statistics of Classified Wages for a series of years, we find that all Massachusetts industries, between 1903 and 1908, with the exception of 1907, for which year the figures were omitted, show a slight decrease in the percentages of persons receiving less than $9 a week, a practical uniformity in the percentage of persons receiving from $9 to $15 a week, and a considerable increase in the percentage of persons receiving over $15 a week. These figures, therefore, bear out in every particular the average figures which showed a constant rise in the average wages for all Massachusetts wage earners. The statistics of classified wages for females lead to exactly the same conclusions. Among this group of workers as well as among the males, there is a slight decrease in the percentages receiving lower rates of wages, and a slight increase in the percentages of those receiving higher rates of wages, although the increase among the higher group is less for females than for males. So far as Massachusetts is concerned it may, therefore, be stated that during the years from 1903 to 1908 when data are available, there has been a slight increase in the classified as well as in the average wages of the wage earning groups in the population.

Turning now to the New Jersey wage statistics, we find very similar conditions. A table containing the percentages of adult males receiving certain groups of classified weekly wages in all New Jersey industries from 1897 to 1909 shows a considerable decrease in the lower groups, great uniformity in the middle groups, and a very large increase in the higher paid groups of wage earners. For example, in 1897 there were about 12 per cent. of the wage earners receiving between $15 and $20 a week, and 7 per cent. receiving $20 per week and over. In 1908 these percentages had increased to 17 per cent., and 9 per cent. Meanwhile the total number employed had increased from 41,723 to 204,782.

A very marked improvement is also shown in the wages of adult females in New Jersey. In 1897, 39 per cent. of all adult females in New Jersey received less than $5 per week. This percentage decreased regularly until in 1908 when it was 22 per cent. The percentage of women receiving between $8 and $9 has remained fairly constant, 7 per cent. in 1897 and 9 per cent. in 1908. There has been, however, a slight increase in the percentage of women receiving classified wages in all groups above $5 per week.

Here again the New Jersey figures closely parallel those for Massachusetts. In both cases the wages of adult males have apparently risen more generally than the wages of adult females, since the percentage of adult males receiving the higher rates of wages has increased much faster than the percentage of females receiving like rates of wages.

Owing to the limitations imposed by space, no analysis of wages in specific industries extending over a long period will be given. Nevertheless, a study of the representative industries of Massachusetts and New Jersey over this period shows exactly the same tendencies in the individual industries as are displayed in the industries of the state at large. In all cases, there is an upward tendency, varying slightly with the industry but always showing the same direction.

VI. UNEMPLOYMENT AS A FACTOR IN WAGES COMPUTATIONS.

Thus far wage statistics have been presented, some of which do and some of which do not take into consideration the influence upon employment. Average wages, which were secured by dividing the total earned for the year by the number of persons employed, do take into consideration the unemployment factor. However, average wages are rather unsatisfactory, and as the student's chief reliance must be placed on classified wage figures, it is there that the most emphasis must be laid.

Classified wage statistics do not take into consideration the extent of unemployment. In so far as they fail to do so, they furnish a very inadequate basis for deductions as to annual earnings. It is very possible to decide from the statistics of weekly wages the relative status of the different groups of wage workers and to make comparisons between different years. But from these data alone no fair conclusions can be reached as to the annual earnings of the workers under consideration.

That unemployment is a problem of serious magnitude is clearly indicated by Dr. Devine, who states, after an analysis of the causes of destitution in five thousand New York families that unemployment affected 4,424 individuals in 69.16 per cent. of the five thousand families, while, of the twenty-five separate disabilities which led to destitution, unemployment occupies the leading place.* Unemployment (involuntary idleness during normal work time) is a prime element in creating poverty, because it is a most potent factor in lowering annual earnings. While it is impossible to state the exact extent of unemployment in the United States, a fairly accurate estimate may be based on the available unemployment data.

The English figures, excellently presented by Chapman† and Beveridge‡ are paralleled in the United States by the figures of unemployment procurable from the coal mine reports§ and the reports of the New York Bureau of Labor Statistics.||

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* Misery and Its Causes, Edward T. Devine, New York, Macmillan Company, 1909, p. 204.

† Supra, p. 316.

‡ Unemployment, W. H. Beveridge, New York, Longmans, Green & Co., Chap. 4.

§ The Production of Coal in the United States, Edward W. Parker, Washington Government Print, 1908.

|| New York Department of Labor, Bulletin 41, p. 114.

The coal mine figures are more extensive and show that a coal miner may expect unemployment equivalent to one fourth or one third of his entire working time. In years of depression, his unemployment may increase to one half his working time.* The New York figures show a steady decrease in unemployment from 1897 to 1906, from which year there was a constant increase until March, 1907, when the unemployment for all trades was 35.7 per cent.

For the unionized trades of New York State, for the coal industry of the United States, and by inference for the other industries of the United States, we may draw these conclusions:

A. Unemployment is always a factor in modern industry.

B. The average miner can work, from year to year, about two thirds of the time.

C. In other industries, the average unemployment from year to year is almost one fifth.

D. In some years the unemployment is several times more severe than in others.†

So "The various elements in the problem lead ultimately to a degree of unemployment, varying with the year, the season of the year, and sometimes, in the case of casual labor, with the day of the week. In each case workers are without the work upon which they are dependent for a livelihood.‡

All of the statistics cited in this study must be weighed with the problem of unemployment in mind. As unemployment varies with the year and the industry, so wages for different years and different industries are modified in varying proportion by the unemployment factor.

In the reports of both Massachusetts and New Jersey some data are published regarding the number of days worked. A clear distinction should be made between this material and complete unemployment statistics which would include unemployment from personal as well as from industrial causes. Nevertheless, as the number of days worked is the only adequate basis which is afforded, it must be employed in the following discussion. In 1908, out of three hundred and five working days, the manufacturers of Massachusetts actually worked two hundred and seventy-five. That is, the industries of Massachusetts lost 12 per cent. of the working time. In New Jersey, during the same year, the lost working time in all industries amounted to 10 per cent. of the total working time. Thus in both states approximately one tenth of the working time was consumed in unemployment for which industrial conditions were responsible.

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* Unemployment in the United States, Scott Nearing, Quarterly Publications, American Statistical Association, September 1909, pp. 530–5.

† Supra, p. 539.

‡ Social Adjustment, Scott Nearing, New York, Macmillan Company, 1911, p. 276.

The unemployment varied considerably among the different industries. Among the specific industries in Massachusetts cotton goods shows unemployment of 12 per cent., foundry and machine shop of 13 per cent., boot and shoe industry, 13 per cent., and worsted industry 5 per cent. Similar variations appear in the New Jersey statistics.

The extent of unemployment over a series of years is made apparent by tables showing the total number of days worked in all industries and in specific industries for Massachusetts and New Jersey. In both cases the amount of the working time varies without any apparent uniformity. On the whole, the unemployment problem appears to be a most uncertain one, varying with the industry and the year, always prevalent, always important, caused by personal as well as industrial problems, and modifying any group of wage statistics.

VII. EARNINGS IN MASSACHUSETTS AND NEW JERSEY.

The wage data published by Massachusetts and New Jersey are, on the whole, of a thoroughly dependable character. In the first place, the material is collected on explicit schedules which make possible the compilation of valuable tables. In the second place, this compilation has been carried forward in a scientific and thoroughly effective manner. Thus from the statistical standpoint, the data may be regarded as unusually desirable although the material is collected from the employer alone. Any deductions of wages in Massachusetts and New Jersey which are based upon the classified earnings and certain deductions which may be made from the average wage statistics are as reliable as statistical deductions may be.

The conclusions regarding average wages are important chiefly for their corroboration of the conclusions based upon classified wage statistics and for the relation which they furnish between different years. The total average wage for all earners varies but slightly in the two states. When, however, an analysis is made of the average annual earnings by industries a somewhat greater divergence appears.

Speaking generally, $500 represents the average annual earnings of all employees in both states. This average is, however, variable, being much lower in the textile industries and much higher in the non-textile industries. Moreover, the average varies with the number of women employed. In those industries which employ many women the annual average is considerably lower than in those industries employing men exclusively.

An analysis of average wages over a series of years shows that wages vary only slightly from year to year, and that approximately the same variation occurs at the same time in the various industries and in both states. These average data are, therefore, comparative, but nevertheless give an approximate idea of the general wage conditions.

Turning now to the material furnished in the tables of classified wage statistics, one finds that the classified wages in all of the industries of both states are very similar. Thus among the adult males 52 per cent., in Massachusetts, and 57 per cent., in New Jersey, earn less than $12 per week, while 8 per cent. in Massachusetts, and 9 per cent. in New Jersey, earn more than $20 per week. Among the adult females in Massachusetts 51 per cent. and in New Jersey 60 per cent. earn less than $8 per week, while 8 per cent. in Massachusetts and 5 per cent. in New Jersey earn more than $15 per week. The divergence in the wages of females is thus somewhat greater than that in the wages of males. On the whole, however, the classified earnings of both states are very similar.

In the last chapter an attempt was made to show the importance of unemployment as a modifying force in wage statistics. The rates of wages per week are not a real indication of the annual earnings because in some industries 5 per cent. and in others 12 per cent. of the working days are lost through the slack seasons in industry. Just how extensive the loss due to sickness, accident, and other personal causes of unemployment may be, we have no means of knowing, but the reports do provide statistics which show the number of days employed during each year. If the wages per week are multiplied by fifty-two and the percentage of unemployment is deducted from the product of this multiplication, the result will be the annual earnings so far as they can be ascertained in the absence of data showing the extent of unemployment due to personal causes.

An examination of the tables shows that during the years in question when the unemployment for all industries amounted to 12 per cent. in Massachusetts and to 10 per cent. in New Jersey, wages were very considerably reduced below the rate which would prevail if the earnings per week persisted throughout the year. Thus $5 a week, or $250 a year, becomes $229, while $20 a week, $1,040 a year, becomes $915 in Massachusetts, and the like amounts become $234 and $936 in New Jersey.

An analysis of the tables shows that one tenth of the adult males earn less than $325, a year, that one half earn less than $500, three fourths less than $600, and nine tenths less than $800 per year. Among the adult females, on the other hand, one fifth earn less than $200, three fifths less than $325, and nine tenths less than $500, and nineteen twentieths less than $600 annually. While these deductions are but general, they nevertheless present in brief space the conclusions which may fairly be drawn from a study of wages in Massachusetts and New Jersey.